

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method for managing cryptographic keys that are specific to a personal device, comprising:

retrieving in a secure processing point separated from and arranged in communication with the personal device, a unique chip identifier from a read-only storage of an integrated circuit chip included in the personal device;

the secure processing point ~~storing~~assembling a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key;

receiving at the secure processing point, in response to storing the data package, a backup data package from the personal device, which backup data package is the data package encrypted with a unique secret chip key stored in a tamper-resistant secret storage of the integrated circuit chip included in the personal device;

associating the unique chip identifier with the received backup data package;
and

storing the backup data package and the associated unique chip identifier in a permanent public database separated from the personal device.

2. (previously presented) The method as claimed in claim 1, wherein the secure processing point further performs:

associating a unique device identity with the unique chip identifier;
signing the result of said associating with a manufacturer private signature key corresponding to a manufacturer public signature key stored in a read-only memory of the device, thereby generating a certificate for the unique device identity;

storing the certificate in the device; and
storing the unique device identity and the certificate in association with the backup data package and the unique chip identifier in the permanent public database.

3. (original) The method as claimed in claim 1, wherein the at least one cryptographic key includes at least one key to be used for a secure, key based communication channel between a personal device manufacturer and the personal device.

4. (original) The method as claimed in claim 3, wherein the at least one key to be used for a secure, key based communication channel includes a symmetric key.

5. (original) The method as claimed in claim 4, wherein the symmetric key is generated as a function of a master key and the unique device identity.

6. (original) The method as claimed in claim 3, wherein the at least one key to be used for a secure, key based communication channel includes a private/public key pair.

7. (original) The method as claimed in claim 6, wherein the private/public key pair either is:

generated by the secure processing point during assembly of the device; or
generated and stored in advance in a secure database before assembly of the device, in which latter case the cryptographic keys stored in advance of assembly are removed from the secret database after reception of the backup data package.

8. (original) The method as claimed in claim 2, wherein the personal device is a wireless communications terminal and the unique device identity is an identifier which identifies the wireless communications terminal in a wireless communications network.

9. (currently amended) A system for managing cryptographic keys that are specific to a personal device, comprising:

at least one personal device, and

a secure processing point, which secure processing point is separated from and arranged in communication with the personal device,

wherein the at least one personal device includes an integrated circuit chip with a unique chip identifier in a read-only storage and a unique secret chip key in a tamper-resistant secret storage;

wherein the secure processing point includes a processor configured for retrieving the unique chip identifier and for ~~storing~~assembling a data package and loading the data package in the device for storage therein, the data package including at least one cryptographic key;

wherein the at least one personal device includes a processor configured for encrypting the received data package with the unique secret chip key and transferring a resulting backup data package back to the secure processing point; and

wherein the processor of the secure processing point is arranged for storing the received backup data package in association with the unique chip identifier in a permanent public database separated from the personal device.

10. (previously presented) The system as claimed in claim 9, wherein the processor of the secure processing point further is arranged for:

associating a unique device identity with the unique chip identifier;

signing the result of the association with a manufacturer private signature key corresponding to a manufacturer public signature key stored in a read-only memory of the device, thereby generating a certificate for the unique device identity;

storing the certificate in the device; and

storing the unique device identity and the certificate in association with the backup data package and the unique chip identifier in the permanent public database.

11. (original) The system as claimed in claim 9, wherein the at least one cryptographic key includes at least one key to be used for a secure, key based communication channel between a personal device manufacturer and the personal device.

12. (original) The system as claimed in claim 11, wherein the at least one key to be used for a secure, key based communication channel includes a symmetric key.

13. (original) The system as claimed in claim 12, wherein the symmetric key is generated as a function of a master key and the unique device identity.

14. (original) The system as claimed in claim 11, wherein the at least one key to be used for a secure, key based communication channel includes a private/public key pair.

15. (previously presented) The system as claimed in claim 14, wherein the processor of the secure processing point either is:

arranged for generating the private/public key pair during assembly of the device;

or

arranged for retrieving the private/public key pair from a secure database, in which the key pair has been stored in advance before assembly of the device, in which latter case the secure processing point further is arranged for removing the key pair from the secret database after reception of the backup data package.

16. (original) The system as claimed in claim 9, wherein the personal device is a wireless communications terminal and the unique device identity an identifier which identifies the wireless communications terminal in a wireless communications network.

17. (previously presented) A method of recovering a backup data package of a personal device, which backup data package has been assembled and stored in accordance with claim 1, the method comprising:

- reading a unique chip identifier from a read-only storage of the personal device;
- transmitting the chip identifier to a public database;
- receiving from the public database the backup data package corresponding to the transmitted chip identifier; and
- storing the received backup data package in the personal device.

18. (previously presented) A personal device comprising:

- an integrated circuit chip with a unique chip identifier in a read-only storage and a unique secret chip key in a tamper-resistant secret storage;
- a processor configured for outputting the unique chip identifier; and
- a memory for storing a received data package including at least one cryptographic key;

wherein the processor is further configured for encrypting the received data package with the unique secret chip key and outputting a resulting backup data package to a permanent public database separated from said personal device.

19. (previously presented) The personal device as claimed in claim 18, wherein the personal device includes a read-only memory storing a manufacturer public signature key, wherein the memory for storing the received data package is further for storing a received certificate, which corresponds to a certificate stored in association with the backup data package in the public database and which has been signed with a manufacturer private signature key corresponding to the manufacturer public signature key.

20. (original) The personal device as claimed in claim 18, wherein the at least one cryptographic key includes at least one key to be used for a secure, key based communication channel between a personal device manufacturer and the personal device.

21. (original) The personal device as claimed in claim 20, wherein the at least one key to be used for a secure, key based communication channel includes a symmetric key.

22. (original) The personal device as claimed in claim 21, wherein the symmetric key is generated as a function of a master key and the unique device identity.

23. (original) The personal device as claimed in claim 20, wherein the at least one key to be used for a secure, key based communication channel includes a private/public key pair.

24. (original) The personal device as claimed in claim 18, wherein the personal device is a wireless communications terminal and the unique device identity is an identifier which identifies the wireless communications terminal in a wireless communications network.

25. (currently amended) A secure processing point for managing cryptographic keys that are specific to personal devices comprising:

a processor configured for:

retrieving a unique chip identifier from a read-only storage of an integrated circuit chip included in a personal device that is separated from said secure processing point;

~~storing~~assembling a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key ~~in the personal device;~~

receiving an encrypted version of the data package, in the form of a backup data package, from the personal device in response to the stored data package; and

storing the received backup data package in association with the unique chip identifier in a permanent public database separated from the personal device.

26. (previously presented) The secure processing point as claimed in claim 25, wherein the processor is further arranged for:

associating a unique device identity with the unique chip identifier;

signing the result of the association with a manufacturer private signature key corresponding to a manufacturer public signature key stored in a read-only memory of the device, thereby generating a certificate for the unique device identity;

storing the certificate in the device; and

storing the unique device identity and the certificate in association with the backup data package and the unique chip identifier in the permanent public database.

27. (currently amended) A device for managing cryptographic keys that are specific to a personal device, comprising:

means for retrieving in a secure processing point separated from and arranged in communication with the personal device, a unique chip identifier from a read-only storage of an integrated circuit chip included in the personal device;

means for ~~storing~~assembling by the secure processing point a data package and loading the data package in the personal device for storage therein, the data package including at least one cryptographic key;

means for receiving at the secure processing point, in response to storing the data package, a backup data package from the personal device, which backup data package is the data package encrypted with a unique secret chip key stored in a tamper-resistant secret storage of the integrated circuit chip included in the personal device;

means for associating the unique chip identifier with the received backup data package; and

means for storing the backup data package and the associated unique chip identifier in a permanent public database separated from the personal device.